

REMARKS

The Examiner's comments together with the cited references have been carefully studied. Favorable reconsideration in view of the foregoing amendments and following remarks is respectfully requested.

Claims 1, 5, 8-15, 17, and 18 were previously pending in the application. Claims 1, 5, 8-15, and 17 have been rejected. Claims 5, 12, and 13 have been canceled. Claim 1 herewith is amended. Claims presently active are claims 1, 8 to 11, 14 to 15, 17, and 18. Favorable reconsideration of the application in view of the following remarks is respectfully requested

Claims 1, 8, 9, 11-15, and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamura et al. It is the conclusion of the Examiner that "It would have been obvious to use known additives such as a dispersant in quantity necessary to properly disperse the materials."

The rejection is traversed. As Applicants have explained previously, Kitamura et al. do not teach, in the case of two ink-receiving layers, to have stabilizer particles present in both of the layers. Not only does Kitamura et al. not teach this but, in fact, Kitamura et al. teach away from this concept. On page 8, paragraph [0062], Kitamura et al. state "The additional ink receiving layer which may contain no ultraviolet ray absorber is preferably formed in a weight of 1 to 50 g/m²...." (The clear implication, of course, is that it contains no antioxidant as well.) In fact, Example II-1 and Example II-2 of Kitamura et al. teach a single ink receiving layer containing UV absorber and antioxidant, but when two ink receiving layers are used, as in Example II-8, the "base layer" having a dry weight of 15 g/m², does not contain UV absorber or antioxidant.

Applicants' interpretation of Kitamura et al. is consistent with the rest of the disclosure of Kitamura et al. In paragraph [0039], for example, Kitamura et al. state: "In a preferred embodiment of the present invention, to further enhance the light resistance, the ink receiving layer further contains an antioxidant." Kitamura et al. never refer to antioxidant being in the ink receiving layers. Nor does Kitamura say that if two ink-receiving layers are used, they have the same composition. For example, in paragraph [0052], Kitamura et al. state as follows:

For the purpose of enhancing the ink-fixing property of the ink-receiving layer, a cationic compound may be contained in the ink-receiving layer. ...Also, when the ink-receiving layer has a multiple layered structure, the outermost ink-receiving layer on which the ink jet printing is applied preferably contains the cationic compound.

Hence, the Examiner is quite wrong in the conclusion, clearly vitiated by the Examples in Kitamura itself, that because Kitamura et al. teach placing a specific component in a single (outermost) ink receiving layer, they teach, in the case of multiple layers, placing it in a lower, additional layer.

Applicants' interpretation of Kitamura et al. is also supported by the limitations on the amount of the ink receiving layers, whether in microns (μm) or in g/m^2 . (As a rough rule of thumb, 1 μm may be considered to be about 1 g/m^2 .) As required by the present invention, the base layer begins and extends significantly below the top surface of the inkjet recording element. The image-receiving layer holds ink near the surface of the image-receiving layer to form the image, away from the base layer. There is only a single image, so it cannot be both in the image-receiving layer and the base layer. Similarly, Kitamura et al. state (in paragraph [0061]) as follows:

When the ink-receiving layer consists of a single principal ink-receiving layer, usually the ink-receiving layer is preferably formed in an amount of 3 to 60 g/m^2 , more preferably 10 to 50 g/m^2 . When the ink receiving layer has a multiple layered structure, the principle ink receiving layer containing the ultraviolet ray absorber [and implicitly the optional antioxidant] and preferably arranged to form an outermost layer is preferably formed in an amount of 1 to 30 g/m^2When the principle ink receiving layer amount is too high, the light resistance effect may be saturated.

In other words, Kitamura et al. state that the concern for light resistance is only relevant to the outermost ink receiving layer and, even then, only to a limited thickness or depth of the outermost layer. In fact, the middle values of the above recited more preferred ranges in Kitamura et al. match Applicants' ranges quite well. Similarly, the thickness of the layers in the Examples of Kitamura et al. fairly well match the thickness of the layers in the

present invention, supporting the view that the additional ink receiving layers in Kitamura would not be an image-receiving layer that would be in need of light resistance according to Kitamura et al. themselves.

Furthermore, Kitamura et al. do not disclose placing a water-insoluble antioxidant in a base layer that comprises greater than 50 weight percent of inorganic particles consisting of precipitated calcium carbonate and silica gel. While Kitamura et al. basically mention that almost every inorganic pigment known to man can be used in an ink-receiving layer, he does not teach out of the infinite possibilities, the composition of the base layer required by present claim 1, except of course using hindsight based on Applicants' own disclosure. In other words, it would be ridiculous to allege that based on Kitamura, without reference to the present disclosure, anyone would arrive at Applicants' claimed invention. Might have possibly happened given infinite possible combinations of components in the prior art is not the test of obviousness under 35 U.S.C. 103(a). Nowhere does the Examiner have support for any allegation that the prior art teaches the unexpected benefits shown in the present examples.

The Examiner states that the prior art discloses use of either one ink-receiving layer or two such layers and that the layers may be the same or different in composition. It does not logically follow that this teaches that different composition must have the same antioxidant.

In view thereof, it follows that the subject matter of the claims would not have been obvious over Kitamura et al. alone or in view of any of the secondary references at the time the invention was made.

Claims 1 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamura et al. as applied to claim 1 above, and further in view of Chu et al. It is the conclusion of the Examiner that "It would have been obvious to one of ordinary skill in the art that the core/shell latex of Chu et al. may be used to serve the function of binder for the layer." The Examiner also states, "...it would have been obvious to one of ordinary skill in the art to utilize core/shell latex as some or all of the binder of the primary reference in order to diminish surface cracks and improve gloss." Also, claims 1 and 5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamura et

al. as applied to claim 1 above, and further in view of Becker. It is the conclusion of the Examiner that "...it would have been obvious to one of ordinary skill in this art to calendar rather than cast coat as an equivalent alternate means of obtaining a glossy surface."

The rejection is traversed. Applicants take the position that claims 1, 5 (canceled) and 10 are patentable for the reasons stated above, and that the presence of a core/shell latex or calendaring is not necessary for patentability.

In view thereof, it follows that the subject matter of the claims would not have been obvious over Kitamura et al. and further in view of Chu et al. or Becker at the time the invention was made.

The Examiner further argues that the Kitamura et al. do not exclude antioxidants from layers other than the outermost layer. "Not excluding something" is not the proper test for whether it is obviousness to include something. Contrary to the evidence, the Examiner alleges that Kitamura et al. teach placing the antioxidant in the base layer. The Examiner, however, fails to provide any evidence of that allegation, a mere supposition based on hindsight in view of Applicants' own disclosure. Applicants respectfully request the Examiner to identify the paragraph and line of Kitamura et al. that specifies placing the antioxidant in both the image-receiving layer and the base layer.

In view of the foregoing remarks and amendment, the claims are believed allowable and such favorable action is courteously solicited.

Should the Examiner consider that additional amendments are necessary to place the application in condition for allowance, the favor is requested of a telephone call to the undersigned counsel for the purpose of discussing such amendments.

Respectfully submitted,

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